**CCBC: Dundalk School of Mathematics and Science**

**BIOL 109: Human Anatomy & Physiology Section 95185**

**BIOL 109 p**rovides a basic understanding of human anatomy and physiology through the study of the structure and function of the human body. In addition to introductory principles of chemistry and cell biology, the following organ systems will be examined: integumentary, skeletal, muscular, nervous, endocrine, immune, circulatory, respiratory, digestive, urinary and reproductive. Includes both lecture and laboratory components and is a General Education laboratory science.

This course is not a substitute for BIOL 110, 220 or 221 or a prerequisite for other science courses. Note: this course is intended primarily for students preparing for allied health professional careers including: respiratory therapist, radiology technician, radiography (x-ray) technician, massage therapist, EMT (certificates only) and mental health professions; it may be taken by students that want to understand the human body for personal interest or career reasons.  ***This course does not satisfy the Anatomy & Physiology pre-requisite for the Nursing Program.***

**Course Prerequisites/Co-requisites:** (ENGL 052 or LVE)2 and (RDNG 052 or ESOL 054 or LVR2) and (MATH 082 or LVM2)

**I. Basic Course Information:**

* 1. **Instructor:** Jamie Zellers
  2. **Semester** ­ Fall 2011
  3. **Instructor’s Office Number:** N/A
  4. **Instructor’s Contact & email: email:** [**jzellers@ccbcmd.edu**](mailto:jzellers@ccbcmd.edu)
  5. **Science Department Phone number**: 443-840-3292. If you call this number, please leave a message with the Administrative assistant.
  6. **Class Meeting times:** Room: J100 MW 5:45-7:10 Lecture W 7:20-10:15 Lab
  7. **Office Hours &Availability:** Upon Request

**II. COURSE GOALS:**

**A. Learning Outcomes & Course Objectives:** Upon completion of the course, the student will be able to:

1. Identify the major human body systems and their organs.
2. Describe the organization of the human body from molecules to organelles to cells to tissues, organs and organ systems.
3. Explain how the nervous and endocrine systems allow communication between parts of the body.
4. Integrate knowledge of the functioning of the skeletal, muscular, endocrine, cardiovascular, lymphatic, excretory, nervous, reproductive and immune systems of the body in order to explain how the body functions as a whole.
5. Apply knowledge of the major nutritional needs of the body to how the digestive system works.
6. Analyze the development of the human embryo and fetus with respect to the formation of a normally functioning adult.
7. Explain how the anatomy and physiology of the human body are basically identical across all racial and cultural groups.
8. Use instruments or other technology to measure physical parameters such as blood pressure, heart rate, respiratory volumes, urine constituents.

**B. Major Topics:** The topics covered in this course include:

1. Cell Structure and Development
2. Tissue Organization, and Skin, including the uniform basis of skin color
3. Osteology and Articulation
4. Biological Molecules
5. The Muscular System
6. Muscle Contraction
7. Nerve Cells
8. The Nervous system
9. The Endocrine System
10. The Circulatory System
11. Lymphatic System
12. The Immune System – The Body’s Defense
13. The Respiratory System
14. The Digestive System
15. The Urinary System
16. Male Reproductive System
17. Female Reproductive System, Hormonal Cycle, Contraception technology
18. Fertilization and Development

**C. Rationale for the course:** This course can be used to meet the General Education requirement of a four-credit course in the science domain for general education. This course is intended for pre-allied health majors. ***This course is not a substitute for BIOL 110, 220 or 221 or a prerequisite for other science courses.***.  ***This course does not satisfy the Anatomy & Physiology pre-requisite for the Nursing Program.***

**III. EVALUATION:**

1. **Grading Policy**: Grades will be calculated based on the following point system:

Lecture Exams (4 exams @ 75 points each): 300 points

Final Lecture Exam (Cumulative) 125 points

Module Lecture Quizzes (Best 10 of 12 @ 10 pts each): 100 points(2 lowest scores dropped)

Written Assignments (points total): 125 points

Lab Practicals (3 @ 100 Points Each) 300 points

Lab Assignments (Quizzes, pre-labs etc) 50 points

**Total Points 1000 points**

**Final Grade:**

**Points Earned Letter Grade**

900 - 1000 A

800 – 899.9 B

700 – 799.9 C

600 – 699.9 D

Less than 600 F

**You must pass BOTH the lecture and the laboratory portions of the course with at least a 60% in order to pass the course. Failure of either component will result in failure for the entire course. This means you need to earn a minimum of 210 points (out of 350) in lab and 390 points (out of 650 points for lecture).**

***Please note: There will be opportunities for “Bonus” points throughout the semester. Because this opportunity does exist, I WILL NOT Round grades up. If a final grade is 69.9%, you will still earn a “D” for the course.***

1. **Additional Requirements**: Students will also be required to take weekly quizzes and complete various online and written assignments. ***Point values for each of these assignments will be clearly defined in the classroom and in the laboratory.*** The final exam in this course is cumulative (roughly 65% of the exam will cover new material and the other 35% will be cumulative). Written assignments will make up 100 points of the total 1000 points for the course. The type and number of assignments are to be determined by the instructor. Check with your individual instructor for specific requirements for written assignments. ***Point values for these assignments will be clearly defined by your instructor.***
2. **Instructor’s Attendance and Make up policy**

Attendance is strongly encouraged for all lectures/reviews and lab periods**. There will be no make-up exams or quizzes given.**  There are four lecture exams plus a final exam. If you miss an exam, your % score for the final exam will count double to replace the missing grade. Under **no** circumstances will retests be administered. **You** **MUST take the final exam. Failure to do so will result in a zero for that exam.**  **In addition, there will be no make-up lab practicals. Failure to take a lab practical will result in a “zero grade” for that exam and your next practical will count double. No scores for missed exams (lecture or lab) will be given unless the instructor is notified in advance and only for emergency situations approved by the instructor.** You are not allowed to replace the grade on a missed exam if you forget to take the exam on the scheduled date **AND/OR** do not notify the instructor that you cannot take the exam before the deadline. There are no make-up exams and no extensions for deadlines for any quiz or other type of assignment. Students will be required to submit a doctor’s or hospital note to the instructor for all missed exams. Failure to provide proper documentation will result in a “zero grade” for the missed exam. If you miss two or more exams, the missing exams will receive a “zero grade”, in other words, you can only replace one grade.

**Participation in all laboratories is mandatory**. No Make-up labs will be given. If you are going to miss a lab, you need to contact your instructor to see if space is available in another lab section during the **SAME** week. **Allowing you to attend a different laboratory section is up to the discretion of that lab’s instructor and APPROVAL IS NOT GUARENTEED!** You will still be held responsible for any & all material that you missed in lab. Lab quizzes and other assignments will be given in lab.

**Withdrawing from the course:** [**http://www.ccbcmd.edu/catalog/academic/grades.html**](http://www.ccbcmd.edu/catalog/academic/grades.html)

THE DEADLINE FOR WITHDRAWING FROM A COURSE OR CHANGING TO AN AUDIT IS **November 4th, 2011, BY 4:00 PM. FAILURE TO OFFICIALLY WITHDRAW FROM A CLASS YOU HAVE STOPPED ATTENDING CAN RESULT IN AN "F" GRADE. The college policy on withdrawals is as follows:**

The W grade is issued when a student withdraws from any course after the refund period; that is, during the first ten weeks of a regular semester or within the first two-thirds of winter, summer or late start classes. To withdraw from a course, the student must complete a Drop/Add/Withdrawal form, which is available in the Records and Registration office. After the published time limit has expired, a withdrawal may be granted only under extraordinary circumstances with written approval of the appropriate dean. Otherwise, if the withdrawal form is not completed by the deadline noted in the current credit class schedule, the student will receive an F grade.

**Auditing the course:** [**http://www.ccbcmd.edu/catalog/academic/grades.html**](http://www.ccbcmd.edu/catalog/academic/grades.html)

Students wishing to audit this course are expected to attend class on a regular basis. **Any audit student with three or more unexcused absences (including the laboratory) will be withdrawn from the class.** **For example a missed lecture and lab results in 2 absences. The College policy on Audits is as follows:**

A student may register for any class as an audit. Course work and examinations are not required and no credit is awarded. The student is expected to attend classes regularly and pay the required fees and tuition. Students who do not meet attendance requirements of the instructor will receive a final grade of W. Some courses may limit the number of times an audit may occur. A student may elect to change his or her registration from credit to audit for any course during the first ten weeks of a regular semester or within the first two-thirds of winter, summer or late start classes. After the time limit a student is permitted to change from credit to audit only under extenuating circumstances with written approval of the appropriate academic dean responsible for the course. A student in a developmental, zero-credit course must obtain a signature by a dean of the subject area of the course in order to change to an audit after the end of the third week of a regular semester or a comparable time period for winter, summer, or late start classes.

**Student concerns with course issues: Students should first attempt to take concerns to the faculty member. If students are unable to resolve course-related concerns with the instructor, they should contact Dr. Jennifer Kilbourne, Biology Department Chair and Dundalk Biology Coordinator at** [**jkilbourne@ccbcmd.edu**](mailto:jkilbourne@ccbcmd.edu) **or 443-840-3761.**

**IV.  COURSE PROCEDURES:**

1. **Course Materials (required):**

* Text Package which includes: **(ISBN for Package is 978-1-60-831460-7)**
  + Memmler’s Structure & Function of the Human Body by Cohen & Taylor 9th edition Lippincott, Williams & Wilkins Publishers **ISBN for Book only: 9780781765886**
  + Study Guide for Memmler’s Structure & Function of the Human Body by Cohen & Hull 9th edition Lippincott, Williams & Wilkins Publishers **ISBN for Book only: 9780781765961**
  + Coloring Atlas of the Human Body by Kerry Hull Lippincott, Williams & Wilkins Publishers **ISBN for Book only: 9780781765305**
* Lab Manual: Laboraotry Manual for Anatomy & Physiology with PAL by Marieb, 3rd edition; Pearson/Benjamin Cummings Publishers **ISBN: 0321586468**
* **OPTIONAL TEXTS & Materials:**
* Pocket Handbook for Biology by Kirszner **ISBN: 075996094**
* Get Ready for A&P by Garrett; Pearson Publishers **ISBN: 9780321493262**
* Rapid Review by Lippincott Williams & Wilkins Publishers. **ISBN: 9781587799310**
* A&P Flash Cards (Available online or possibly at the bookstore) **ISBN: 1427796947**
* The Visual Dictionary of the Human Body **ISBN 1-879431-18-1** (You can get this online at Barnes & Noble or Amazon)
* Safety Goggles – Must be worn for dissections

1. **Special procedures:**

Students are responsible for turning in assignments on time. **NO LATE ASSIGNMENTS WILL BE ACCEPTED!**

**ALL ASSIGNMENTS MUST BE WRITTEN IN COMPLETE SENTENCES AND PARAGRAPH FORM (NO LISTS OF BULLETED ITEMS). YOU MUST INCLUDE A PROPER REFERENCE FOR EACH ASSIGNMENT (DO NOT TELL ME THE INFORMATION WAS COMMON KNOWLEDGE...YOU MUST PROVIDE YOUR SOURCE!!!) IF YOU FAIL TO WRITE IN THE PROPER FORMAT OR DO NOT INCLUDE A REFERENCE(S), YOU WILL RECEIVE A "0" FOR THE ASSIGNMENT. NO ACCEPTIONS.**

Students are expected to be on time for class to avoid disrupting the class once it has begun. The student is advised to read the assigned material prior to the lecture and to review material after the lecture. ***(College Regulations Code of conduct <http://www.ccbcmd.edu/catalog/codeofconduct.html> )***

Lab materials will be maintained in the laboratory for one week. Anyone wishing to review models past this time should contact the instructor, or plan to attend an open lab session if available. Models are also available in the library for students to use for review. Models used in the laboratory will be placed on reserve in the library for use outside of class. (Please consult lab instructor for guidelines on obtaining laboratory materials outside of class time.)

Students are encouraged to participate in class and lecture by asking questions or requesting further discussion on points of questions or interest. The instructor appreciates feedback from the students in class, laboratory or at any other time. Should a student have questions, problems or difficulty, he or she should contact the instructor at their earliest mutual convenience.

1. **Tentative list of dated assignments: PLEASE SEE ATTACHED LECTURE & LAB SCHEDULE FOR SPECIFIC DATES (AT THE END OF THE SYLLABUS)**
2. **CCBC COLLEGE INFORMATION (Found in CCBC 2010-2011 College Catalog) For college wide syllabus policies such as the Code of Conduct related to Academic Integrity and Classroom Behavior or the Audit/ Withdrawal policy, please go to the Syllabus Tab on the MyCCBC page. This information is also posted below.**

**Code of Academic Integrity- <http://www.ccbcmd.edu/catalog/codeofconduct.html>** [**http://www.ccbcmd.edu/ccbc/academic integrity.html**](http://www.ccbcmd.edu/ccbc/academic%20integrity.html)

For the College to makes it maximum contribution as an institution of higher learning, the entire college community must uphold high standards of integrity, honesty and ethical behavior. In seeking the truth, in learning to think critically, and in preparing for a life of constructive service, honesty is imperative. Each student has a responsibility to submit work that is uniquely his or her own or to provide clear and complete acknowledgement of the use of work attributable to others. To these ends, the following actions are expected of students:

* Complete all work on exams without assistance
* Follow the professor’s instructions when completing all class assignments
* Ask for clarification when instructions are not clear
* Report to the instructor any unauthorized information related to an exam
* Provide credit when quoting or paraphrasing
* Submit only one’s own work.

Students who do not accept responsibility for the integrity of their own work will experience sanctions including a written reprimand, failure of the assignment, failure of the course and/or dismissal from the program. For repeat or extreme offenses, the College reserves the right to suspend or expel students.

**Course Repeat Policy** <http://www.ccbcmd.edu/catalog/academic/repeatcourse.html>

The College’s policy on Repeated courses, states “Students who have already received two grades (including W, AU, I or R) in any course are prohibited from registering for the course for the third or subsequent time without the written permission of an academic dean or his/her designee. (Note: If the course is developmental, the recommendation of a support team (including at least one individual selected by the Senior Director of Developmental Education and at least one individual selected by the academic unit) must be included in the decision making process of the academic dean or his/her designee.

**Writing Policy** <http://www.ccbcmd.edu/catalog/academic/writingpolicy.html>

The college recognizes that clear, correct and concise use of language is characteristic of an educated person. Therefore, whenever possible, faculty members in all disciplines should require written assignments in their courses in order to encourage effective writing by their students. Also, instructors should consider the quality of writing in determining a grade for a written assignment. Poor writing can be a sufficient cause of a failing grade on a paper and, in extreme cases, a failing grade in a course.

**Inclement Weather/Emergency Closing Policy** <http://www.ccbcmd.edu/catalog/publicsafety/closings.html>

In the event that the college (or a specific campus) opens late due to weather-related or other emergency conditions, classes will commence at the announced opening time and resume the normal schedule thereafter for the remainder of the day. Faculty, students and classified staff should report to wherever they would normally have been at the announced opening time.

Closings and delays will be recorded on the campus weather line- 443-840-3700

**Tutoring Services and Student Success Centers**

Students are encouraged to seek help from their instructor whenever they encounter academic difficulty. In addition, there are free academic support services. For more information visit Room J-211 or call 443-840-3666.

**Civility and Community Building Expectations**

As a member of the CCBC community of learners, we are expected to act with respect, honestly, responsibility and accountability. Each of us is expected to be aware of the impact of our behavior on the community. CCBC wishes each learner to commit to the following actions:

* Become an active and engaged learner
* Celebrate the richness of our diversity
* Respect the campus and its codes of conduct
* Practice empathy and compassion
* Promote the empowerment of others

**Major Religious Holiday Policy** <http://www.ccbcmd.edu/catalog/religious_holiday.html>

Students not attending class because they are observing a major religious holiday shall be given the opportunity, to the maximum extent possible, to make up, within a reasonable amount of time, any academic work or tests they miss. Arrangements between the student and instructor must be made IN ADVANCE of the holiday and by initiation of the student.

**Student email accounts**

For information about the system and how students can determine their email address, go to the CCBC homepage and click on “student email”. From here you will also find information on forwarding your CCBC email messages to your personal email account (Hotmail, gmail etc).

**Services for Students with Disabilities** <http://www.ccbcmd.edu/catalog/development/disabilities.html>

CCBC is committed to providing equal access to educational opportunities for all students by arranging support services and reasonable accommodations for students with disabilities. A student with a disability may contact the campus office for an appointment to discuss those accommodations. A-100, 443-840-3774.